# PATENT SPECIFICATION 757,945

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Index at Acceptance :—**Class 27**, A1(A2 : PX).

COMPLETE SPECIFICATION.

## Improvements in or relating to Bottle Vending Machines.

We, HALL TELEPHONE ACCESSORIES LIMITED, a British Company, of 70 Dudden Hill Lane, Willesden, London, N.W.10, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention relates to machines for vending bottles of beverages, its object being to provide an improved machine which may be adjusted to supply all heated beverages or all cooled beverages.

According to this invention there is provided a machine for vending bottles of beverages, the bottles being housed in an insulated chamber with an access opening closed by a removable panel and having a cooling unit and a heating unit in the chamber, which units are adapted to be selectively operated, so that the machine can be set to dispense all heated beverages or all cooled beverages, and the units being removable through the access opening for service or replacement. It is not intended that the machine should be able to supply heated or cooled beverages instantaneously at the will of the purchaser.

The invention may be applied to a bottle-vending machine as described in our co-pending Application No. 2930/54 (Serial No. 147,124).

The invention will now be described in more detail, by way of example, with reference to the accompanying drawings, in which :—

Figure 1 is a front elevation ;

Figure 2 is a side elevation, with the chief internal parts shown dotted ;

Figure 3 is a horizontal section on the plane III—III, shown in Figures 2 and 4 ;

Figure 4 is a composite rear elevation, showing an access panel removed.

[*Price* 3*s.* 0*d.*]

A bottle-vending machine has an outer casing 1, with a small housing 2 containing coin-freed mechanism having a coin slot 3 and an operating handle 4. The bottles are dispensed singly through an opening 5 having a cover 6.

Inside the upper half of the casing 1 is an insulated chamber comprising insulated walls 7, a removable insulated lid 7A and an insulated base 7B. An insulated panel 7C, forming part of the rear wall of the compartment, is removable to provide access to heating and cooling units, which will be referred to subsequently.

Within the chamber is housed rotatable drum-like mechanism, indicated generally by 8 in Figures 2 and 4, for storing and delivering the bottles. This mechanism is preferably as shown in our co-pending Application No. 2930/54. In addition it has an electric motor 8A and fan 8B, for directing air downwardly to the heating and cooling units, to cause circulation of air within the chamber.

In the lower half of the casing 1 is housed a further electric motor 9 and fan 9A, (shown diagrammatically in Figures 2 and 4) with other parts, not shown, for maintaining the cooling unit at the proper low temperature. It is unnecessary to show or describe such parts in detail as they are well-known in refrigerating practice.

Referring now particularly to Figures 3 and 4, a cooling unit 10 and a heating unit 11, both of low overall height (see Figure 4), are housed in the insulated chamber below the drum-like mechanism 8. The units 10 and 11 are supported on a tray or platform 12 which in turn is slidably supported at each side on angle bars 13. Suitable electric leads and refrigerant pipes pass from the units 10 and 11 out of the insulated chamber and down to the lower part. These leads and pipes are made so as to be easily disconnected

from the units, which may then be removed from the machine by sliding the tray or platform 12 rearwardly on the bars 13 and out through the access aperture uncovered by removal of the panel 7C. Thus the units 10 and 11 may be easily removed for servicing or replacement. Suitable switchgear is provided so that the machine may be set to deliver cooled beverages.

The cooling unit 10 is of the continuous tube kind through which the refrigerant is circulated. The pipe is indicated diagrammatically at 10A. The heating unit consists of a coiled heating element, of well-known type and indicated diagrammatically at 11A.

The removable panel 7C is preferably arranged to be held in place and to be quickly removable by means of suitable clip devices, or by screws 14.

What we claim is :—

1. A machine for vending bottles of beverages, the machine having an insulated chamber in which the bottles are housed and the chamber having an access opening closed by a removable panel, and having a cooling unit and a heating unit in the chamber which units are adapted to be selectively operated so that the machine may be set to dispense bottles of cold beverages or hot beverages, and the units being removable through the access opening for servicing or replacement.

2. A machine according to Claim 1 wherein the units are of low overall height and are mounted in a common plane.

3. A machine according to Claim 2 wherein the units are supported on a tray.

4. A machine according to Claim 3 wherein the tray is slidably mounted for rearward movement through the access opening.

5. A machine for vending bottles of beverages, substantially as described herein with reference to the accompanying drawings.

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## PROVISIONAL SPECIFICATION.

# Improvements in or relating to Bottle Vending Machines.

We, HALL TELEPHONE ACCESSORIES LIMITED, a British Company, of 70 Dudden Hill Lane, Willesden, London, N.W.10, do hereby declare this invention to be described in the following statement :—

The present invention relates to machines for vending bottles of beverages and has for its object to provide an improved machine incorporating heating and cooling means which can be selectively brought into effect to enable hot or cold drinks to be dispensed.

Broadly, according to the invention, there is provided a machine for vending and dispensing bottles of beverages which comprises refrigerating and heating elements or units housed in separate compartments, and means for establishing communication between one or other of said compartments and a chamber containing the bottles to be dispensed. The arrangement is such that one of said compartments is isolated from the bottle chamber when the other one is in communication with said chamber.

Any suitable means may be provided for bringing one or other of said compartments into communication with the bottle containing chamber. For example, a swinging door may be placed between the hot and cold compartments to enable the heating or cooling units to be placed in communication with the bottle chamber. Alternatively, a sliding door or shutter arrangement may be employed which is movable to establish communication between one or other of the compartments and the bottle chamber and at the same time to interrupt communication between the remaining compartment and the bottle chamber.

If desired, said door, or a part or parts moved thereby, may be adapted to actuate switch means which automatically results in the heating element or elements, or alternatively, the refrigerating unit, being brought into operation.

Conveniently a fan or blower may be employed for causing hot or cold air to pass from the selected compartment into the bottle chamber.

The arrangement proposed by the present invention may be incorporated in any construction of bottle vending machine and is particularly, although not essentially, applicable to the machine described in our copending Patent Application No. 2930/54 (Serial No. 747,124).

It is preferred that the component parts of the refrigerating section of the machine shall be supported in the apparatus in such a manner that they can be easily and quickly removed to facilitate servicing or repair and cleaning. In this respect the evaporator or cooling unit can be slidably supported at opposite side edges by supporting rails in the cooling compartment while like-wise the motor unit may be housed in a separate com-

partment and mounted on a base board or the equivalent which is slidably supported along opposite side edges on rails in said separate compartments.

The electric circuit for the motor may also be used for driving said fan or blower.

From the foregoing it will be appreciated that the object of the invention is achieved and a dispensing or vending machine provided whereby bottled beverages may be dispensed either hot or cold.

It is of course to be understood that the expression " bottles " used herein is intended to cover other required containers, e.g. cans, for drinks.

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757,945 COMPLETE SPECIFICATION
1 SHEET

*This drawing is a reproduction of the Original on a reduced scale.*

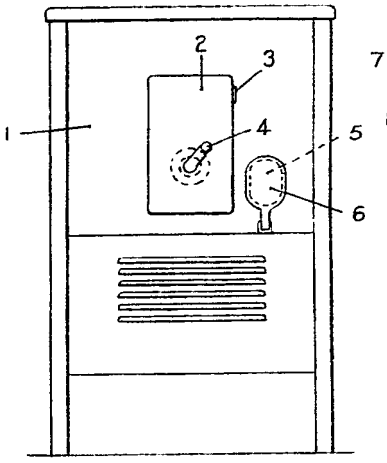



FIG.1

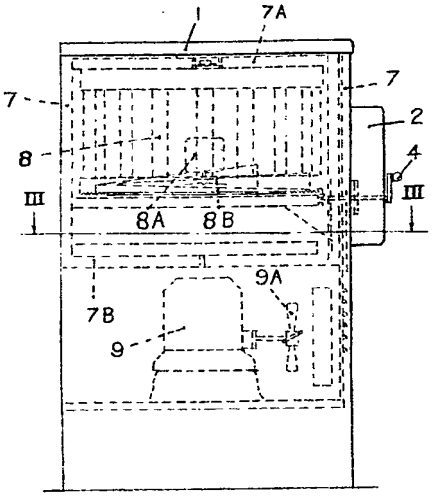



FIG.2

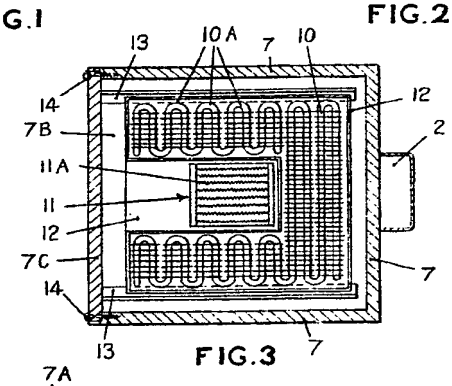
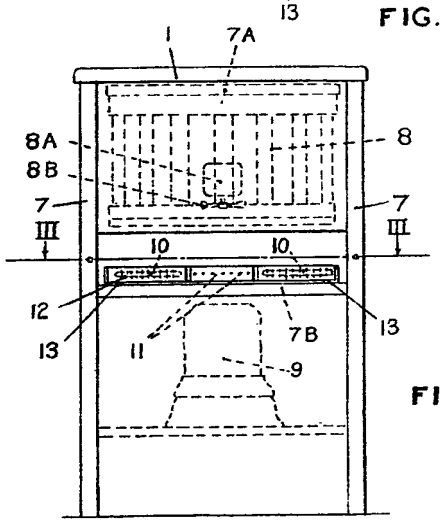



FIG.3



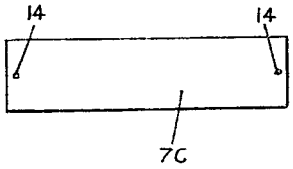




FIG.4